

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
29 December 2004 (29.12.2004)

PCT

(10) International Publication Number  
**WO 2004/113392 A1**

- (51) International Patent Classification<sup>7</sup>: C08F 2/00, 4/34, 14/06, 2/01
- (21) International Application Number: PCT/EP2004/006536
- (22) International Filing Date: 15 June 2004 (15.06.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 60/480,283 20 June 2003 (20.06.2003) US
- (71) Applicant (for all designated States except US): AKZO NOBEL N.V. [NL/NL]; Velperweg 76, NL-6824 BM Arnhem (NL).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): MEULENBRUGGE, Lambertus [NL/NL]; De Gemeint 11, NL-6931 HZ Westervoort (NL). VAN SWIETEN, Andreas, Petrus [NL/NL]; Reinaldstraat 6, NL-6883 HM Velp (NL). VANDUFFEL, Koen, Antoon, Kornelis [BE/NL]; Stevinhof 18, NL-7424 AH Deventer (NL). WESTMIJZE, Hans [NL/NL]; Burg. Boreellaan 1, NL-7437 BB Bathmen (NL).
- (74) Agent: SCHALKWIJK, Pieter, Cornelis; Akzo Nobel N.V., Intellectual Property Dept. (Dept. AIP), P.O. Box 9300, NL-6800 SB Arnhem (NL).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:
- with international search report
  - before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: POLYMERIZATION PROCESS INVOLVING THE DOSING INITIATORS

(57) Abstract: The invention relates to a polymerization process wherein at least one peroxide, with a half life in between 1 hour and 0.001 hour at the polymerization temperature at the moment of dosing, is dosed to the reaction mixture at the polymerization temperature and wherein at least during part of the period in which the peroxide is dosed i) the cooling means of the reactor are kept at essentially maximum cooling capacity and ii) the amount of initiator that is dosed is actively controlled such that the desired polymerization temperature is achieved and maintained within 0.3°C of said polymerization temperature.

WO 2004/113392 A1